

All Optical Wavelength Conversion Based On Four Wave Mixing in Optical Fiber

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Abstract : We have designed wavelength conversion based on four wave mixing in an optical fiber at 10 Gb/s. The power of converted signal increases with increase in signal power. The converted signal power is investigated as a function of input signal power and pump power. On comparison of converted signal power at different value of input signal power, we observe that best converted signal power is obtained at -2 dBm input signal power for both up conversion as well as for down conversion. Further, FWM efficiency, quality factor is observed for increase in input signal power and optical fiber length.

Keywords : FWM, optical fiber, wavelength converter, quality

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